

**COLORADO RIVER RECOVERY PROGRAM  
FY-2004/2005 PROPOSED SCOPE OF WORK for:  
O&M Grand Valley**

Project No.: 29a

Lead Agency: Fish and Wildlife Service  
Colorado River Fishery Project

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Category

- ☐ Ongoing project  
☒ Ongoing-revised project  
☐ Requested project  
☐ Unsolicited proposal

Expected Funding Source

- ☒ Annual funds  
☐ Capital Funds  
☐ Other

I. Title of Proposal: **Operation and Maintenance of Grand Valley Endangered Fish Facilities.**

II. Relationship to 2003 RIPRAP:

General Recovery Program Support Action Plan:

IV. Manage genetic integrity and augment or restore populations.

IV.A. Genetics Management.

IV.A.4. Secure and manage genetic stocks in refugia.

IV.A.4.a. Razorback sucker

IV.A.4.a.(2) Upper Colorado River.

IV.C. Operate and maintain facilities.

IV.C.2. Grand Valley Endangered Fish Facility.

Green River Action Plan: Mainstem

IV.A.1.c. Implement (stocking) plan.

Colorado River Action Plan: Mainstem

- IV.A. Augment or restore populations as needed.
- IV.A.2.a. Develop State stocking plan for razorback sucker in the Colorado River in Colorado.
- IV.A.2.a.(2) Implement razorback sucker state stocking plan.

Colorado River Action Plan: Gunnison River

- IV.A. Augment or restore populations as needed.
- IV.A.3. Develop State stocking plan for the razorback sucker in the Gunnison River.
- IV.A.3.b. Implement razorback sucker State stocking plan.

III. Study Background/Rationale and Hypotheses

This project is directly related to Section 2.4 IV. “Conserve Genetic Integrity and Augment or Restore Populations” in the Recovery Program Recovery Action Plan (USFWS 2003). One of five elements in the Recovery Program is “native fish stocking”. The goal of this element is to produce sufficient captive-reared endangered fishes for conducting laboratory and field research and to develop brood stocks with genetic diversity similar to the wild stock used as founders (Williamson and Wydoski 1994). The need for captive-reared endangered fish and propagation facilities is identified in Wydoski (1994).

Fishery biologists have cultured and reared endangered fishes in the upper basin since 1987. Propagation began in the Grand Valley in 1991 with construction of Horsethief Refugia Ponds at Horsethief State Wildlife Area. The refugia ponds were constructed to develop and hold broodstock from the last wild razorback suckers captured from the upper Colorado River. Production of razorback suckers began in 1996 when an intensive-rearing hatchery building was built. The hatchery was expanded in 1998 and is currently capable of producing about 100,000 young razorback suckers averaging 4 inches long each year. Construction and leasing of grow-out ponds have produced 30 ponds totaling 92 surface acres suitable for rearing large razorback suckers for stocking into the rivers of the upper basin.

The first young razorback suckers produced in the Grand Valley facility were stocked into the Gunnison River in 1995. More than 33,000 razorback suckers have been stocked into the Gunnison and Colorado rivers since then. The Grand Valley facility currently has a broodstock of about 300 adults, including offspring ( $f_1$ s) from wild razorback suckers comprising four year classes. Fish from younger year classes ( $f_2$ s) are also being held and will be added to the broodstock as they mature. Accurate records of lineage for all fish are maintained to ensure that the maximum amount of original genetic material is maintained in the broodstock. Spawning is controlled to ensure that equal numbers of offspring (eventually encompassing several generations) from the original, wild broodstock will be stocked into the river system over the duration of the propagation program.

IV. Study Goals, Objectives, End Product:

Goal: To operate a genetically sound captive propagation program for high priority endangered fish species for the RIP in the Upper Colorado River Basin in accordance with the Annual Propagation Operation Plan (Czapla 2003).

Objective: Operate and maintain propagation facilities that are needed to hold, rear, or produce captive-reared endangered fishes for the RIP in the Upper Colorado River Basin in accordance with the Annual Propagation Operation Plan.

End Product: Maintenance of endangered fish in refugia to prevent extinction; development of genetically sound broodstocks for production of young fish for stocking to stabilize or enhance wild stocks; production of captive-reared endangered fish for priority laboratory and field experiments.

V. Study area: Upper Colorado River Basin — Propagation facilities in Grand Valley, Colorado.

VI. Methods/Approach:

Conduct all tasks associated with the operation and maintenance of the Grand Valley Endangered Fish Facilities in accordance with the Genetic Management Plan (Williamson and Wydoski 1994; Czapla 1999) and the annual propagation plan.

VII. Task Description and Schedule:

All tasks are done annually

1. Develop and maintain captive razorback sucker broodstock.
2. Spawn razorback sucker broodstock and produce family lots for culture at the 24 Rd Hatchery.
3. Intensively rear razorback sucker at the 24 Rd Hatchery.
4. Stock 8-inch-long razorback suckers into grow-out ponds in spring.
5. Maintain water level, water quality, and productivity in 30 grow-out ponds totaling 92 surface acres.
6. Harvest, PIT tag, and stock approximately 15,000 12-inch-long razorback sucker into the Gunnison, Colorado, and Green rivers fall and spring.

# VIII. FY-2004 Work

## Labor for tasks 1-6:

Project Leader (@1880/wk for 16 weeks)	30,080
Administrative Officer (@1225/wk for 16 weeks)	19,600
Fishery Biologist (2@1225/wk at full time)	132,300*
*(includes 4,900 Sunday and Holiday differential)	
Biological Technician (GS 9@1225/wk at full time)	63,700
Biological Technician (3 GS 5/6 @600/wk for 13 wks)	<u>23,400</u>
Labor Subtotal	269,080
Fish Food	18,500
Chemicals and Fertilizer	10,300
Travel	3,350
Equipment and Parts	15,350
Supplies and Miscellaneous	9,550
Vehicles (3, gsa rental (1), gas, repairs	20,050
Electricity	<u>10,600</u>
	356,780
With New Hatchery Truck <sup>1</sup>	374,000–381,000

<sup>1</sup>Replacement of a ten-year old hatchery truck which has been requiring more and more maintenance has been requested after 2004–2005 Program Guidance went out. The cost of the vehicle would be approximately 35,000. A cost share for this vehicle is being investigated with the San Juan Program. The cost to the Upper Basin Program would be between \$17,000–24,000.

## FY-2005 Work

### Labor for tasks 1-6:

Project Leader (@ 1974/wk for 16 weeks)	31,584
Administrative Officer (@ 1287/wk for 16 weeks)	20,592
Fishery Biologist (2@ 1287/wk at full time)	138,915*
(*includes 5067 Sunday and Holiday differential)	
Biological Technician (1@ 1287/wk at full time)	66,924
Biological Technician (3GS 5/6; @630/wk for 13 wks)	<u>24,570</u>
Labor Subtotal	282,585
Fish Food	19,425
Chemicals and Fertilizer	10,815
Travel	3,518
Equipment and Parts	16,118
Supplies and Miscellaneous	10,028
Vehicles	21,053
Electricity	<u>11,130</u>

374,670

IX. Budget Summary:

FY-2004 \$356,780

FY-2005 \$374,670

X. Reviewers:

Various Service and Recovery Program staff.

XI. References:

Czapla, T.E. 1999. Genetics Management Plan. Upper Colorado River Endangered Fish Recovery Program, Denver, Colorado.

Czapla, T.E. 2003. Propagation Activities, 2003. Upper Colorado River Endangered Fish Recovery Program, Denver, Colorado.

USFWS (U. S. Fish and Wildlife Service). 2003. Recovery implementation program for endangered fish species in the upper Colorado River basin. U. S. Department of the Interior, Fish and Wildlife Service, Region 6, Denver, Colorado.

Williamson, J. H., and R. S. Wydoski. 1994. Genetics management guidelines. Recovery implementation program for endangered fish species in the upper Colorado River basin. U. S. Department of the Interior, Fish and Wildlife Service, Region 6, Denver, Colorado.

Wydoski, R. S. 1994. Coordinated hatchery facility plan: need for captive-reared endangered fish and propagation facilities. Recovery implementation program for endangered fish species in the upper Colorado River basin. U. S. Department of the Interior, Fish and Wildlife Service, Region 6, Denver, Colorado.